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INVESTIGATION OF PROTOTYPE VOLCANO-SURVEILLANCE NETWORK

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Type I Progress Report for Period 1 March 1973 to 30 April 1973

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Type I Progress Report

ERTS-A

- a. Title: Investigation of prototype volcano-surveillance network

ERTS-A Proposal No.: 145

- b. GSFC Id No. of P.I.: IN 384

- c. Problems: When the snow began melting at Mt. Lassen, fewer messages were received from the two DCP's operating there. A visit to the site showed at least six feet of snow above the antennas and we assume that when this dry snow became wet from melting that it became a more efficient RF shield.

No signals have been received from the Mt. Baker installation since December. We believe the antenna is buried by tens of feet of snow.

- d. Accomplishments: Most of the network has been installed and is operating. A teletype from Goddard to Menlo has been installed but the wrong paper tape punch was delivered and the correct punch has not been installed yet.

- e. Significant results: The equipment continues to work quite reliably and earthquakes are being recorded at all sites.

- f. Papers or reports:

Ward, P.L., Eaton, J.P., Endo, E., Harlow, D., Marquez, D., and Allen, R., 1973, Establishment, test and evaluation of a prototype volcano-surveillance system, NASA ERTS-1 Symposium, March 5 to 9, talk and paper.

Endo, E., Ward, P. L., Harlow, D., Marquez, D., and Eaton, J. P., 1973, A prototype volcano surveillance system with data collection using the ERTS-A Satellite, Trans. Amer. Geophys. Union, v. 54 (4), 511.

- g. Recommendations: None.

- h. Changes in Standing order forms: None.

- i. ERTS Image description forms: None.

- j. Changes in data request forms: None.

- k. Status of DCP's

DCP Serial No.	State	County	Town	Latitude	Longitude
6005	Washington	Skamania	Mt. St. Helens	47.75N	122.40W
6011	Test-Menlo				
6034	El Salvador		Volcán Izalco	13.81N	89.63W
6036	Nicaragua		Volcán Cerro Negro	12.52N	86.70W
6043	Guatemala		Volcán Agua	14.44N	90.70W
6057	California	Shasta	Mt. Lassen	40.48N	121.51W
6066*	Washington	Whatcom	Mt. Baker	48.78N	121.90W
6103	Guatemala		Volcán Pacaya	14.40N	90.56W
6117	Hawaii		Kilauea, HVO	19.42N	155.29W
6132	Guatemala		Buena Vista	14.67N	90.64W
6154	Nicaragua		Volcán San Cristobal	12.68N	87.28W
6162	Guatemala		Volcán Santiaquito	14.77N	91.56W
6163	California	Shasta	Mt. Lassen	40.48N	121.51W
6176	Nicaragua		Mina Limon	12.78N	86.74W
6213	Test-Menlo				
6240	Guatemala		Volcán Fuego	14.44N	90.85W
6247	Test-Menlo				
6262	Hawaii		Kilauea, Ahua	19.37N	155.27W
6274	Test-Menlo				
6276	Guatemala		Volcán Pacaya	14.38N	90.62W
6311	Test-Menlo				
6315	Iceland		Valahnukar	64.02N	21.85W
6320	Guatemala		Volcán Fuego	14.44N	90.84W
6334	Washington	Pierce	Mt. Rainier	46.94N	121.67W
6342	Alaska		Mt. Iliamna	60.18N	152.82W
6365	Alaska		Augustine Island	59.37N	153.35W
6370	Hawaii		Kilauea, North Pit	19.42N	155.27W
6372**	Nicaragua		Volcán Telica	12.36N	86.52W

* Inoperative under snow.

** To be installed in May.